

AMERICAN FARMER.

RURAL ECONOMY, INTERNAL IMPROVEMENTS, PRICES CURRENT.

"O Fortunatos nimium sua si bona norint
Agricolae." . . . VIRG.

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AGRICULTURE.

FROM THE ALBANY ARGUS.

Treatise on Agriculture.

SECTION III.

Theory of Vegetation.

[Continued from No. 18—p. 140.]

Vegetables may be regarded as the intermediate link in the great chain of creation, between animals and minerals. The latter grow by mere chymical affinity, and by additions, sometimes analogous and sometimes foreign from their own nature; while plants, like animals, have an organization that enables them to receive their food, digest and assimilate it to their own substance, reproduce the species and maintain an existence of longer or shorter duration. Thus far the learned are agreed, but at the next step they differ.

What is this food that gives to plants their development, and maturity, and powers of reproduction? Lord Bacon believed that *water* was the source of vegetable life, and that the earth was merely its home, its habitation; serving to keep plants upright, and to guard them against the extremes of heat and cold. Tull, on the other hand, (and after him Du Hamel) pronounced *pulverized earth* the only pabulum of plants, and on this opinion built his system of husbandry. Van Helmot and Boyle opposed this doctrine by experiments: the former planted and reared a cutting of willow in a bed of dry earth, carefully weighed and protected against accretion by a tin plate, so perforated as to admit only rain and distilled water, with which it was occasionally moistened. At the end of five years, the plant was found to have increased *one hundred and sixty four pounds*, and the bed of earth to have lost, of its original weight, only *two ounces*. Boyle pursued a similar process with gourds, and with a similar result. Notwithstanding the apparent conclusiveness of these experiments, their authority was shaken, if not subverted by others made by Largraff, Bergman, Hales, Kirwan, &c. &c. The first of these, shewed, that the rain water, employed by Van Helmot, was itself charged with saline and earthy matter; Bergman demonstrated this by analysis, while Kirwan and Hales proved that the earth, in which the willow cutting was planted, could absorb these matters through the pores of the wooden box which contained it, and that a glass case could alone have prevented such absorption. Hunter, finding that oil and salt entered into the composition of plants, concluded that these formed their principal food, and accordingly recommended, as the great desideratum in agriculture, an *oil compost*. Lord Kaimes attempted to revive the expiring creed of Lord Bacon, but finding from Hales' statistics, that one third of the weight of a pea was

made up of a carbonic acid, he added *air* to the watery aliment of the English philosopher—but entirely rejected *oil* and *earth*, as too gross to enter the mouths of plants, and *salt* as too acrid to afford them nourishment. Quackery, which at one time or other, has made its way into all arts and sciences, could not easily be excluded from agriculture. Hence it was, that the Abbe de Valemont's *prolific liquor*, and De Hare's and De Vallier's *powders*, &c. &c. were believed to be all that was necessary to vegetation, and found the more advocates, as they promised much and cost little. But before the march of modern chymistry, quackery could not long maintain itself; and from the labours of Bennet, Priestly, Saussure, Ingenhousz, Seanebier, Schæder, Chaptal, and Davy, &c. &c., few doubts remain on this important subject. These will be presented in the course of the following inquiry.

1st. Of *earths*, and their relation to vegetation.

Of six or eight substances, which chymists denominated *earths*, four are widely and abundantly diffused, and form the crust of our globe. These are *silica*, *alumina*, *lime*, and *magnesia*. The first is the basis of quartz, sand and gravel; the second of clay; the third of bones, river and marine shells, alabaster, marble, limestone, and chalk; and the fourth, of that medicinal article, known by the name of calcined magnesia. In a pure or isolated state, (1) these earths are wholly unproductive; but when decomposed and mixed, (2) and to this mixture is added the residuum of dead animal or vegetable matter, (3) they become fertile, take the general name of *soils*, and are again specially denominated, after the earth that most abounds in their compositions respectively. If this be silica, they are called *sandy*; if alumina, *argillaceous*; if lime, *calcareous*;

(1) See Gisbert's experiments on *pure earths* and their mixtures. See also Davy's Elements, p. 156.

(2) In this respect nature has been neither negligent nor niggardly, if (as Fourcroy asserts) the purest sand be a mixture of quartz, alumina and sometimes of calcareous matter, *Speculative geology* is romance, and does not merit the name of science; yet is science obliged to borrow her theory of soils. The alternation of heat and cold, moisture and dryness, decomposed the mountains of primitive, secondary and tertiary formation; rains and the laws of gravity, brought these from places of more, to those of less elevation—where, by mechanical mixture and chymical combination, the present substrata were formed. But these were yet naked and unproductive, when the *Cryptogamia* family (mosses and lichens) took possession of them, and in *due time* produced that vegetable matter, which made the earth productive and the globe habitable.

(3) Dead animal, and vegetable matter, in the last stage of decomposition, give a black or brown powder, which the French chymists call *terreau* or *humus*, and which Mr. Davy calls an *extractive matter*; this is the fertilizing principle of soils and manures.

and if magnesia, *magnesian*. Their properties are well known: a *sandy* soil is loose, easily moved, little retentive of moisture, and subject to extreme dryness; an *argillaceous* soil is hard and compact when dry, tough and paste like when wet, greedy and tenacious of moisture; turns up, when ploughed, into massy clods, and admits the entrance of roots with great difficulty. A *calcareous* soil is dry, friable and porous; water enters and leaves it with facility; roots penetrate it without difficulty, and (being already greatly divided) less labour is necessary for it than for clay. *Magnesian*, like calcareous earth, is light, porous and friable, but like clay when wet, takes the consistency of paste, and is very tenacious of water. It refuses to combine with oxygen or with the alkalies: is generally found associated with granite, gneiss and schiste, and is probably among the causes of their comparative barrenness. (4)

In these qualities are found the *mechanical relations* between earths and vegetables. To the divisibility of the former it is owing that the latter are enabled to push their roots into the earth; to their *density*, that plants maintain themselves in an erect posture, rise into the air, and resist the action of the winds and rains; and to their power of *absorbing* and *holding* water, the advantage of a prolonged application of moisture, necessary or useful to vegetable life. But besides performing these important offices, there is reason to believe that they contribute to the *food* of vegetables. This opinion rests on the following considerations and experiments:

1. If earths do not contribute directly to the food of plants, then would be all soils alike productive; or in other words, if air and water *exclusively* supply this food, then would a soil of pure sand be as productive as one of the richest alluvion.

2. Though plants may be made to grow in pounded glass, or in metallic oxides, yet is the growth in these, neither healthy nor vigorous, and,

3. All plants, on analysis, yield an earthy product; (5) and this product is found to partake most of the earth that predominates in the soil producing the analysed plant; if *silica* be this dominant earth, then is the product obtained from the plant *silicious*; if *lime* prevails, then is the product calcareous, &c. This important fact is proved by De Saussure.

1st EXPERIMENT.

Two plants (the *pinus abies*) were selected,

(4) The opinion is general among the chymists of Europe, that magnesian earth is not only barren itself, but the cause of barrenness in other soils in which it may abound, unless saturated with carbonic acid. See Base, Tennant and Davy.

(5) Davy says this never exceeds one fiftieth of the whole product.

the one from a calcareous, the other from a granitic soil, the ashes of which gave the following products:

	Granitic soil.	Calcareous soil.
Potash	3 60	15
Alk & Sub-sulphates	4 24	15
Carbonate of lime	46 34	63
Carbonate of Mag.	6 77	00
Silica	13 49	00
Alumina	14 86	16
Metallic oxides	10 52	00

2d. EXPERIMENT.

Two Rhododendrons were taken, one from the calcareous soil of Mont de Salle, the other from the granitic soil of Mount Bevera. Of a hundred parts, the former gave fifty seven of carbonate of lime, and five of silica; the latter thirty of carbonate of lime and fourteen of Silica.

3d. EXPERIMENT.

This was made to determine whether vegetables, the product of the soil having in it no silica, would notwithstanding partake of that earth. Plants were accordingly taken from Reculey de Thierry, (a soil altogether calcareous) and the result was a very small portion of silica.

These experiments says Chaptal, leave little if any doubt, but that vegetables derive the earthy matter they contain from the soil in which they grow. (6)

2d. Of water, as an agent in vegetation:

Seeds placed in the earth, and in a temperature above the freezing point, and watered, will develop; that is, their lobes (7) will swell, their roots descend into the earth, and their stems rise into the air. But without humidity, they will not germinate; or deprived of humidity after germination, they will perish. When germination is complete, and the plant formed, its roots and leaves are so organized as to absorb water. The experiments of Hales prove that the weight of plants is increased in wet, and diminished in dry weather; and that in the latter, they draw from the atmosphere (by means of their leaves) (8) the moisture necessary to their well being. Du Hamel (and after him Vennibier) has shown, that the filaments that surround the roots of plants, and which have been called their hair, perform for them in the earth, the office that leaves perform in the atmosphere, and that if deprived of these filaments, the plants die.

It would be easy, but useless, to multiply facts

(6) Schæder maintains the doctrine, that the earths found in plants are created there by the process of vegetation. His essay on this subject was crowned by the academy of Berlin, in 1801. His experiments were the first to determine the different quantities of silica found in different sorts of grain.

(7) Moisten a bean in warm water, and detach the skin that covers it, and it readily divides into two parts; these are called lobes.

(8) Bonnet's experiments show, that it is the under surface of the leaf, that performs this function. The upper surface has a different office.

Correction.—In copying the second section, an error escaped in relation to the Tuscan plough; the passage should have read thus—"The plough of the north of Europe, like that of this country, has the power of a wedge, and acts horizontally—that of Tuscany has the same direction, but a very different form. With the outline of a shovel, it consists of two inclined planes, sloping from the centre, and forms a gutter and two ridges."

of this kind, tending to establish a doctrine not contested, but which after all does not assert, that water makes any part of the food of plants. On this point, two opinions exist—the one, that this liquid is a solvent and conductor of alimentary juices; the other, that it is itself an aliment and purveyor of vegetable food at the same time. The first opinion is abundantly established. Water when charged with oxygen, supplies to germinating seeds the want of atmospheric air and saturated with animal or vegetable matter in a state of decomposition, or slightly impregnated with carbonic acid, very perceptibly quickens and invigorates vegetation. The second opinion is favoured by some of de Saussure's experiments. On these, Chaptal makes the following remark, which expresses very distinctly an approbation of the doctrine they suggest: "The enormous quantity of hydrogen (which makes so large a part of vegetable matter) cannot be accounted for, but by admitting (in the process of vegetation) the decomposition of water, of which hydrogen is the principal constituent; and that though there is nothing in the present state of our experience that directly establishes this doctrine, yet that its truth ought to be presumed, from the analysis of plants and the necessary and well known action of water on vegetation.

[To be continued.]

FROM THE NATIONAL INTELLIGENCER.

THE POTATO.

This valuable root is a native of America.—Whether it was here before the flood or not, is of no consequence to us. It is here now, and our duty is to make the most we can of it. It is curious enough to see the people on the Potomac importing potatoes from New England or Nova Scotia, and sometimes from Ireland, when they might just as well be exporting them for little more than half the price. In this respect they are almost as wise as some of our wine drinkers, who rather than miss their favourite beverage, will run the risk of the plague, the gout, an Algerine war—while at the same time they might obtain spruce beer of the very first quality from their own country, for less than half the price, without any of the above risks. The run for foreign articles, so prevalent in our country, often makes me think that if potatoes were brought from the moon at 10 dolls. per bushel, they would find purchasers. However, as there are some few among us, who wish to raise potatoes, and don't know how, I will give them the following directions, which may serve until they get better. It is supposed that the farmer has already some knowledge of the nature and strength of soils, so as to know the quantity and quality of manure requisite to get a crop. I have seen 1000 bushels of cow-manure put on an acre of poor land, which has brought and ought to bring 400 bushels of potatoes. No doubt but plaster would answer a good purpose on sandy or gravelly soil. The ground ought to be ploughed eight inches deep, and well harrowed.—The easiest method of planting is with the plough, in rows, three feet apart; the seeds, containing one eye, or two at most, ought to be eight inches apart, if they are allow-

ed any chance to grow; each seed should weigh the third of an ounce Avoirdupois. At this rate an acre will require about 15 bushels of seed. I prefer planting in the increase of the moon, though the difference may not be much; the practice of changing the seed seems to be useless; when people have got a good kind I would advise them to keep it. I have seen potatoes raised for twenty years on one plantation without changing the seed, any farther than from one field to another, and back again without any visible alteration. As to planting, if the ground be rich enough without manure, the furrow for the row need not be more than four inches deep, otherwise it ought to be six. In dry, sandy land put the seed under the manure: if otherwise put it on the top. The seed and manure being put in the furrow, they can be covered with the plough, no matter how deep. About six or seven days after planting, go over the field with a horse and light harrow, by this means the rows will be nearly levelled without stirring the seed, if the person at the harrow knows how to manage it. When the plants have risen about three inches above the ground, the horse and plough may be sent through them to plough the earth from the rows about four inches deep, leaving the rows eight inches wide with the plant in the middle of it. When they have got up to six inches, a small portion of earth may be ploughed up to them, taking care not to cover the plants. About this time the cut worm is likely to become troublesome—in order to prevent this you may watch your opportunity for a calm morning between day break and sunrise, when the firing three or four charges of gun powder over each acre, will affect them very seriously; the dose may be repeated as occasion requires—this is much easier than pouring arsenic down their throats.

When the plants have got ten or twelve inches high, the last ploughing may take place, when the furrows must be completely cleared up—the hoe must now, for the first and last time, follow, to rectify what the plough has missed; the rows, when finished, ought to be at least twelve inches higher than the furrows. It is now that the plant begins to be of use; the tender leaves make tender greens. I have often wondered to see people running ready to break their necks, over hill and dale, among briars and rattlesnakes, to gather wild herbs, and perhaps poisonous ones too, when they had plenty of good wholesome potato tops close to their door. But now comes the potato in bloom. How beautiful! If you have bees, the blossoms should not be molested until the apples appear; if not, they may be pulled off with about two inches of the stem—these boiled, and seasoned with butter are a delicacy that perhaps monarchy never tasted nor ever thought of. The pulling off the blossoms or balls, when first formed, is of service to the plant, as what would support the apple will now return to the root. To perform this operation would be fine amusement to children; consequently no loss of time to the farmer. Those who dig potatoes before they are ripe, should count the cost and act accordingly. It is very easy to know when they are ripe, by the death of the tops. If the weather be warm, they should be dug up to prevent a second growth, and put in the cellar mixed with

some sand. Deep cellars, (say ten feet) are cooler in summer, and warmer in winter, than shallow ones. How this happens when both are filled full, I leave philosophers to explain. The potato binn ought to be frequently overhauled during the winter and spring, in order to move the small and decayed ones from the pile, as one rotten one will soon spoil a dozen. Also, if they are found to be watery, from a wet season or soil, a very small piece may be cut off from the top or seed, so called; this will help them considerably. All this may be done in the evenings without any loss of time. It is likely that slaves will not like the employment; and why should they? After working all day for nothing, it is hard enough to work at night too; but men who earn their own living as they ought to do, will think no hardship of it. I have no doubt but potatoes might be kept in the vicinity of an ice house, at a certain temperature, for many years. I have seen them eighteen months old, as sound, hard and sweet, as when they were taken out of the earth. The uses that the potato may be applied to, are numerous. As an article of food, they may be used many ways, such as roast, boiled, stewed, fried or baked as one ingredient in bread to eat warm although some people that love them, don't know how to cook them either way. As a medicine, they are not without their virtues, being of an opening quality. In fact I never knew a great potato eater have the gout to a serious degree. The gratings of this root, after being gently pressed and the juice thrown away, make fine poultices for fresh scalds or burns. I had almost forgot that the juice makes excellent starch. Now let us see how it stands in the line of luxuries; the potato will make coffee and whiskey, but when we consider that not one in a thousand knows how to make the former, and prejudice being on the opposite scale it will be of little consequence, while the latter will do more harm than good. If we turn to the animal world we will find a great call for this favourite root. Its value to horses is well known to farriers. I might go on to shew how beneficial it would be for cows, sheep, goats, or even cats, dogs and fowls; but the reader will probably be tired, and the printer also.

PATRICK.

P. S. It is not too late yet to plant potatoes.

FROM THE RALEIGH STAR.

Receipt for making Cider, and preserving it sound for years.

Three months ago, I was at the house of Nicholas Nall esq. who lives near Deep River, at the upper extremity of Moore county, where I drank old cider of a very superior quality; and as the habitual use of cider is eminently conducive to health, insures sobriety, imparts the agreeable sensation of strength and vigour, and as it is a pleasant beverage that can be afforded at a small expense; I took care to be exactly informed of his manner of making, refining and preserving it, in the hope that advantage might accrue in the publication of it. Mr. Nall had in his cellar, as well as I now remember about 8 or 10 hogsheads and fifty or sixty barrels of cider of different ages, the oldest was best; nor did he think any fit to drink until it was at least a year old.—That which I drank, was three years old, and it was

excellent. His oldest cider I did not taste, as he intends it as treat for his executors. He complained that his stock was too small to drink it of the age he wished; but intended to fill another cellar. I here copy Mr. Nall's receipt, as he gave it to me in writing in April last.

"All apples fit to be eaten, will make good cider.—The grand secret is the cleansing it from the filth and dregs as early of possible. Each sort of apples are to be beaten and pressed by themselves. Two kinds of juice, both good would, if mixed, often make bad cider. Throw out all imperfect, sorry and sun burnt apples, as well as dust and trash.—Beat your apples before much mellowed; as they lose their strength, soundness and spirit, if too mellow.—Let them stand half a day after being beaten, before put into the press; then press them slowly; discontinue it as soon as the juice appears thin and watery. The advantage of slow pressure is in making the liquor run pure. Let your casks, previously well cleansed, be filled quite full, to permit the froth and pumace to discharge itself at the bung.—When the fermentation abates, cover the bung closely with something that may be lifted by the fixed air that escapes during the future fermentation. In a week, rack off the cider carefully, ceasing the moment you observe it to run muddy: Now stop the cask more firmly. In ten days, rack it off a second time: and in fifteen days a third time. In every instance, the casks are to be clean, and perfectly well filled; and when filled for the last time, to be bunged close in a deep, dry cellar, never to be moved until drawn for use. Late cider need not be racked until March, and then one racking, or at most two, will be sufficient. Be very careful that no water, not even the little that will adhere after rinsing a cask, is mixed with the cider. The smallest quantity of rain water will render cider unfit to keep. The addition of any quantity of distilled spirits is not only useless, but injurious."

Mr. Nall's method is the result of long experience, and its success justifies me in recommending it to the publick. I hope it will be tried.

CALVIN JONES.

Raleigh, July 25, 1819.

N. B. I ought to have mentioned that Mr. Nall told me, he had for many years tried various plans for clarifying cider to prevent its souring, by means of milk, isinglass, scalding and scumming filtering through sand, &c. &c. and found all useful; but is satisfied that frequent racking or drawing is far preferable to any other method he has attempted.

An Act to improve the Agriculture of the State of New York.

1. BE it enacted by the People of the State of New York, represented in the Senate and Assembly, That the sum of ten thousand dollars per year, for the term of two years, from, and after the passing of this act, shall be, and hereby is appropriated for the promotion of agriculture, and family domestic manufactures within this state; that the said sum shall be distributed among the several counties of this state, in the manner following, to wit: To the county of Albany, three hundred and fifty dollars; to the county of Alleghany, seventy five

dollars; to the county of Broome, one hundred dollars; to the county of Cayuga, two hundred and fifty dollars; to the county of Chataque, fifty dollars; to the county of Chenango, two hundred dollars; to the county of Clinton, one hundred and twenty five dollars; to the county of Columbia, three hundred dollars; to the county of Cortland, one hundred and twenty five dollars; to the county of Delaware, two hundred dollars; to the county of Dutchess, four hundred dollars; to the county of Essex, one hundred and twenty five dollars; to the county of Franklin, one hundred dollars; to the county of Genesee, two hundred and fifty dollars; to the county of Greene, two hundred dollars; to the county of Herkimer, two hundred dollars; to the county of Jefferson, two hundred dollars; to the county of Kings, seventy five dollars; to the county of Lewis, one hundred dollars; to the county of Madison, two hundred and fifty dollars; to the county of Montgomery, four hundred dollars; to the county of New York, six hundred and fifty dollars; to the county of Oneida, and that part of the county of Oswego which formerly formed part of the county of Oneida, four hundred dollars; to the county of Onondaga, and that part of the county of Oswego, which formerly formed a part of the county of Onondaga, three hundred dollars; to the county of Ontario, five hundred dollars; to the county of Orange, three hundred dollars; to the county of Otsego, four hundred dollars; to the county of Putnam, one hundred dollars; to the county of Queens, two hundred dollars; to the county of Rensselaer, three hundred and fifty dollars; to the county of Richmond, seventy five dollars; to the county of Rockland, one hundred dollars; to the county of Saratoga, three hundred dollars; to the county of Schenectady, one hundred dollars; to the county of Schoharie, two hundred dollars; to the county of Seneca, one hundred and fifty dollars; to the county of St. Lawrence, one hundred dollars; to the county of Stuben, one hundred and fifty dollars; to the county of Suffolk, two hundred dollars; to the county of Sullivan, one hundred dollars; to the county of Tioga, one hundred and fifty dollars; to the county of Tomkins, one hundred and fifty dollars; to the county of Ulster, two hundred and fifty dollars; to the county of Warren, one hundred dollars; to the county of Washington, three hundred and fifty dollars; and to the county of Westchester, two hundred and fifty dollars.

2. And be it further enacted, That when an agricultural society shall be formed in any one county, or in two contiguous counties, and the members thereof shall annually procure, or raise by voluntary subscription, any sum of money the president and treasurer shall make and subscribe an affidavit of the facts of the formation of such society, and of their having raised a certain sum, specifying the amount thereof; which affidavit shall be filed with the comptroller of this state, who shall draw his warrant on the treasurer, for the payment of a sum equal to the amount of such voluntary

subscription; not, however, in any case exceeding the amount to which such county or counties would be entitled according to the apportionment aforesaid.

3. And be it further enacted, That the several agricultural societies which may be formed in this state, shall elect such and so many officers as they may deem proper, all of whom shall be practical farmers; none of whom, however, shall receive any emolument from his office; and it shall be the duty of such officers annually to regulate and award premiums on such articles and productions as they may deem best calculated to promote the agricultural and manufacturing interest of the state.

4. And be it further enacted, That each person to whom any premium shall be awarded, for any agricultural product, shall, before the receipt thereof make as accurate a description of the process used in cultivating the soil, and in raising the crop, or of feeding the animal, as may be; and shall in all cases describe the nature of the soil, the kind and quantity of the manure, the state thereof, and the time of the year in which applied; and deliver the same to the president of said society.

5. And be it further enacted, That the several presidents of the said societies, shall annually, within one week after the annual meeting of the legislature, transmit all such reports or returns to the office of the secretary of state, to be by him kept safely till demanded by the board of agriculture, hereinafter named and organized.

6. And be it further enacted, That the several presidents of the several agricultural societies within this state, or a delegate to be chosen by each of the said societies, shall form a board of agriculture for this state; who, on the first Monday after the annual meeting of the legislature, may convene in the capitol, in the city of Albany, any five of whom shall form a quorum; may elect a president, secretary, and such other officers as they may think proper, receive and examine all such reports and returns as aforesaid, and select for publication, such of them, and such other essays as they may judge advisable; and shall annually publish a volume at the expense of the state, to be distributed by means of the said agricultural societies, to the good people of the state, not exceeding fifteen hundred copies of such volume; which president and secretary shall continue in office during the continuance of this act.

7. And be it further enacted, That the treasurer of this state shall, annually pay, on the warrant of the comptroller, to the said board of agriculture, one thousand dollars, to enable them to purchase and distribute among the several agricultural societies, such useful seeds as they may deem proper, and to defray such other necessary expenses to promote the object of this act, as are not otherwise provided for; and said board shall annually account with the comptroller for the expenditure of said money.

8. And be it further enacted, That it shall be the duty of the secretary of this state, as soon as may be, to cause this act to be pub-

lished in at least one newspaper, printed in each of the great districts of this state.

From the Winchester Gazette.

CHILE WHEAT.

We have the pleasure of communicating to our agricultural friends the copy of a letter from Abel Seymour esq. of the neighbourhood of Moorfield, a gentleman of observation and intelligence, to the hon. Hugh Holmes, of this place. The minute account given by Mr. Seymour of his experiment and success in cultivating a small quantity of the CHILE WHEAT, will no doubt be read with more than ordinary interest by those interested in the raising of this valuable commodity. It is hoped, that the miniature experiment of Mr. S. will induce our farming gentlemen to purchase some of the seed, and extend the experiment upon a more enlarged scale.

"Moorfield July 14. 1819."

"I enclose you an ear of *Chile Wheat*, as you are a wheat raiser. It appears to me it will be a valuable acquisition to this country; whether it will succeed best to be sown in the Fall or Spring of the year must be proved by experiment—there is no doubt, on my mind, but it will do in the Spring. My son was in Baltimore in March last, and procured a little, perhaps half a spoonful of the seed. He returned on the 2d day April—I had just finished reading Mr. Bland's report, and had made up my mind that the wheat of that country must make itself from the moisture in the earth at the close of the rainy season. I could not imagine that nature had formed any country where large fields of wheat could be safely watered by streams to be taken on high land for eighty or one hundred miles [the length of the Valley of Chile, from the mountain to the Pacific] without a very dense population, which I did not understand from Mr. Bland's book, existed.* This circumstance, together with the doubt whether the little seed we had might be kept safe until the fall season, caused me to direct my son to sow it in my rye field, in a place from which we had taken a fodder stack, and left a vacancy of about five feet in diameter. The fore part of April, with us, was cold and dry, so that it did not vegetate until the 18th and 20th of the month, the rye by this time, had got so high as almost to smother it.

However, it grew on with a broad strong blade of a very bluish cream colour; on the 8th day of June I observed some ears showing out, and on the fourteenth they were fully out. When I saw the ears I was much pleased with their appearance, and with a sickle cut the rye from around it, and thus gave it a little room for the air to reach it—it grew to the height of about three feet and an half; some of the stalks were four feet high; the ears are in the form of the enclosed, very full of grain, but short—some I measured were two and an half inches in circumference, having four, and sometimes five grains abreast—they do not embrace the stem as our wheat does, but set with the end to the stalk with grains irregularly set around the top—the smallest ears of it have as many grains as the largest of my crop of wheat. The drought for the last

three weeks, with us, was very severe, which prevented some of the top grains from filling properly. We had also put it in a poor gravelly spot of land. I am of the opinion that it would be well for gentlemen who have got of the seed to keep a part to sow in the spring; mine is now ripe, and my oats, which were sown a week before it, are not. If it does not deteriorate it will be valuable.

"I remain dear sir, with respect,

Your obedient servant,

ABEL SEYMOUR."

Hon. HUGH HOLMES.

Unwilling on account of its curiosity, to shell the ear sent to me by Mr. Seymour and thereby ascertain its contents, I have counted the grains on the ear, on the supposition of five being abreast, as stated by him, (and I believe correctly) and found twelve in each row, which make the grains amount to 120—thus exceeding the best average of golden straw from 40 to 50 grains, the purple straw about the same, and the Snider, Jones or Lawler, about 80.

HUGH HOLMES.

NOTE BY A CORRESPONDENT.

* All the vallies of Chile, have the appearance, to the spectator, while in them of being perfectly circular, oval or oblong. This appearance is owing to the height and steepness of the ridges on each side, and to the elevated knobs, that here and there rise out of the middle of them, or to the projecting spurs of the lateral ridges, that often meet and form transverse ridges which, closing the view, gives to the valley a circular, and amphitheatre-like appearance. The principal rivers of Chile, like those of the United States, make their way to the ocean, from their highest elevations in the mountains, directly across the vallies; the length of which, is uniformly found to be nearly north and south, or parallel with the Andes. The vallies of Chile lie in successive ledges, like shelves, or star steps, one above another, from the first plane, the surface of which, is nearly on a level with the top of the bluff range of promontories which frown over the margin of the ocean, to the foot of the lofty Cordellera, the tops of which are, two thirds of the year, clad in snow. Following the direct route from the capital to Valparaiso, notwithstanding the crossing of prodigious ridges, the descent from valley to valley, is very evident. On looking at the country from sea, the vallies being completely hid, it has the aspect of one enormous range of mountains, from the shore to the snow capped top; the crags and spurs appearing to rise immediately one above another, without the least interval.

The principal vallies, directly east of Valparaiso, are the Tablas, a great part of which might, very probably, be watered by the stream that crosses it. As yet it is used only for pasture, particularly for sheep, of which there are prodigious flocks on it. This valley is about fifteen miles wide. The valley of Casa Blanca, which is about the same width is crossed by a very abundant and bold stream.

The valley of Curricabee about eighteen miles wide, is very fertile, and the greater part

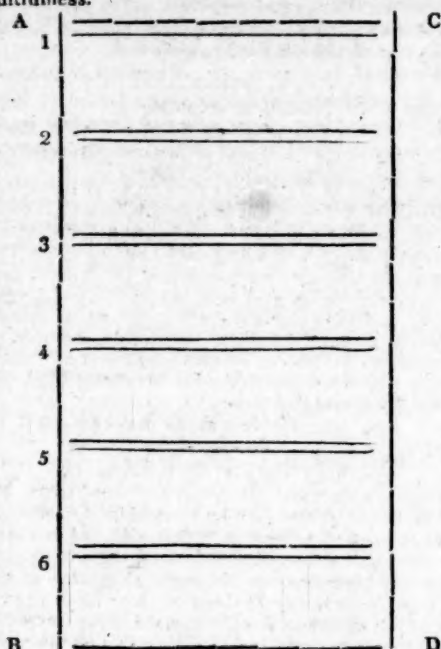
capable of being watered. And lastly, the valley of St. Jago, about the same width, and one of the longest and finest in Chile. The valleys generally present a very even surface, with some few gently elevated waves, and swells; and they all decline more or less from east to west; that of St. Jago, immediately round the capital, a beautiful plane, has been found by actual measurement to have a declension from east to west of one and a half inches to every one hundred and fifty yards.

The annexed diagram will enable the reader to comprehend the manner of watering the wheat fields and vineyards in Chile. Let A, B C and D represent a wheat field of from twenty to fifty acres. The water is conducted from the river of the valley, along the upper side of the field, in a ditch, from A to B. The field is then, after the wheat is sown, crossed with small trenches, such as might be made by running a plough two or three times in the same furrow, from the ditch A, B, to the opposite side of the field D, C. These small trenches are about eight or ten feet apart, and have the water turned into them, from the ditch, by a few sods being thrown into it, at 1, 2, 3, 4, 5 and 6, just below their several intersection with it. Vines are usually planted in rows, four feet apart one way, and about eight feet the other; and these vineyards are irrigated, during the summer, in a manner similar to the wheat fields. The whole operation is extremely simple, and is attended with very little trouble. As far north as the latitude of Valparaiso, some of the hill sides, having a favourable southern aspect, are sown with wheat, which is brought to perfection without any other moisture than the autumnal and winter rains, and the ooings from the hill side; but the flat, of no valley, in that latitude, or to the northward of it, will bring wheat to perfection without irrigation from the rivers.

Some of the Chileno farmers purposely leave growing in their wheat fields, a great number of bushes of the shrub called espino, or thorn, which bears an abundance of small tufts of flowers, of a bright gold colour, which are very fragrant. These bushes which are suffered to grow to a size somewhat larger than our sweet briar, they say, cherish and protect the wheat from the fervid rays of the sun, and hold it up. The espino, of Chile, has a very strong resemblance to our common locust.

I mention this circumstance for the consideration of our farmers, in consequence of what you, Mr. Editor, remarked not long since, relative to the social quality, or the antipathy of plants. Although the causes have never been, that I know of, in any way explained, yet the existence of the principle, of this vegetable affinity, or repulsion appears to have been well known to the ancients, and in different countries. Plutarch tells us, that among the regulations of Solon, respecting the planting of trees, one of them, directed, "that he, who planted any tree in his field, was to plant it at least five feet from his neighbor's ground; and if it were a fig-tree or an olive, nine; for these extended their roots farther than others, and their neighborhood is prejudicial to some trees, not only as they take away the nourishment, but as their effluvia is noxious." And in Venezuela, where the cacao, or chocolate nut, is cultivated to great advantage, we are told, that the delicate cacao cannot bear the unbroken rays of the vertical sun; and that it must be shaded by some more robust plant in its immediate neighbourhood; that the erytrine, which the Spaniards call *bucare anaveo*, is, therefore, always planted with cacao; that associated with some plants the cacao will wither and die; but, that such is its strong friendship and predilection for the shade,

society and effluvia of the erytrine, that with it for a companion, it attains its greatest perfection and fruitfulness.



TO THE EDITOR

dated—Wye-House, Feb. 21, 1819.

Dear Sir—In the American Farmer of the 9th inst. you requested a communication from those who were furnished with the Chile Wheat, brought in by Judge Bland. In compliance with this request, I now furnish you the result of my seeding: I seeded one pint of this Wheat in my garden, in drills, about the 15th November, a period too late to expect a good product. The Wheat, contrary to my expectations, was very little injured by the frost, and was very promising early in the season; but owing to the drought, some weeks before, and at the time of ripening, the grain is much inferior in quality to the imported seed; but the quantity has far exceeded my expectations. I have this day cleaned and measured it, and the product is 58 pints. This will induce me to seed it with care the next fall, and at a proper season; and I am inclined to think, from the appearance of the head, and the above circumstances, that it will prove a valuable Wheat. Yours, E. LLOYD

Miscellaneous Selections.

INTERNAL IMPROVEMENT.

Extract of a letter from a member of the North Carolina Catawba Navigation Company, to a gentleman in Camden, S. C.

I have great pleasure in stating to you, the rapid progress that is now making in the Catawba Navigation, within the boundary of North Carolina. Much zeal is manifested by the company, and I have little doubt, but that if it meets with a corresponding promptitude, by the citizens of South Carolina, and, especially, by those living contiguous to the Warehree, we shall, in a very short time, have the satisfaction of seeing boats running on its waters for more than 150 miles above the dividing line of the two states.

The liberal appropriation made by the state of S. Carolina, at its last session, is worthy the high character of the state; and, if discreetly managed, will confer additional importance on the reputation she already enjoys. Its amount, I understand, is abundantly sufficient to effect the object in view, and I look forward with increased anxiety, to the formidable obstructions which your Engineer will have to encounter at Rocky Mount and Graves' Island. Were these impediments removed, a safe and easy convey-

ance would throw the whole surplus produce of the counties of Mecklenburgh, Lincoln, Iredell and Burke, into the markets of Camden and Charlestown.

It is a fact but lately known, although well ascertained, that the produce of the upper country, even within six miles of the Blue Ridge, could, with a removal of the present existing obstructions below the boundary line, be transported to any point on the river, with the utmost ease and but little expence. This circumstance taken into consideration, with that of the high prices which the citizens of Camden, and many of the planters, for a few years past, have been compelled to give for provisions, namely, corn, bacon, &c. will, I apprehend, be of itself, a sufficient incentive to direct their attention to this important object.

Mr. Abernethy, the Company's contractor, is at present engaged in cutting a Canal around the shoals of Mountain Island. This is a work of considerable labour and expence, but from a recent inspection, I am induced to believe, that, together with the necessary Locks, it will be completed before the first of January, 1820.

The other shoals on the Muin River are but slight and will admit the passage of boats with perfect safety, in a very few months. However, the attention of the Company, during a part of the spring and summer, has been, and will be, directed to the South Fork of the Catawba, many parts of which will require as much labour, and probably more expence, than the Muin River itself. However, should the contractor succeed in procuring as many labourers, as he is instructed to employ, we may reasonably expect the whole undertaking to be sufficiently advanced within twelve months of this time, to admit the passage of boats on both rivers.

AN ENGLISH SUMMER.

Description of an English Summer, in the year 1768 —extracted from a letter of Horace Walpole, dated June 1.

"I perceive the deluge fell upon you before it reached us. It began here on Monday last, and then rained near eight and forty hours, without intermission. My poor hay has not a dry thread to its back. I have had a fire these three days. In short, every summer one lives in a state of mutiny and murmur, and I have found the reason: It is because we will affect to have a summer, and we have no title to any such thing. Our poets learn their trade of the Romans, and so adopt the terms of their masters. They talk of shady groves, purring sirens, and cooling breezes, and we get sore throats and agues with attempting to realize their visions. Master Damon writes a song, and invites Miss Chloe to enjoy the cool of the evening, and the deuce a bit have we of any such thing as a cool evening. Zephyr is a northeast wind, that makes Damon button up to the chin, and pinches Chloe's nose till it is red and blue: and then they cry, *this is a bad summer*, as if we ever had any other. The best sun we have is made of Newcastle coal, and I am determined never to reckon upon any other. We ruin ourselves with visiting our foreign trees, and make our houses clamber up hills to look at prospects. How our ancestors would laugh at us, who knew there was no being comfortable, unless you had a high hill before your nose, and a thick warm wood at your back. Taste is too freezing a commodity for us, and, depend upon it, will go out of fashion again.

"There is, indeed, a natural warmth in this country, which, as you say, I am very glad not to enjoy any longer—I mean the hot house in St. Stephen's chapel. My own sagacity makes me very vain, though there was very little merit in it. I had seen so much of all parties, that I had very little esteem left for any; it is most indifferent to me who is in or who is out, or which is set in the pillory, Mr Wilkes or my Lord Mansfield. I see the country going to ruin, and no man with brains enough to save it.—That is mortifying; but what signifies who has the undoing of it? I seldom suffer myself to think on this subject; my patriotism can do no good, and my philosophy can make me be at peace."

SALE OF TOWN LOTS IN THE WOODS OF ALABAMA.

At the late sale of town lots in the town of Cahaba, (the spot selected for the seat of government of the future state of Alabama) some of the lots unimproved of course, as the place is yet but a plantation, or piece of woods, sold as high as 5,025 dollars; and 184 lots, the number sold, brought upwards of an hundred and twenty thousand dollars.

CESSION OF THE FLORIDAS.

Extract of a letter from an officer on board the Hornet (to his friend in this City) dated New York, July 30.

"I have the pleasure to inform you of our safe arrival at this port, after a passage of 27 days from Cadiz.

"We have returned without the treaty being ratified, nor is it probable it ever will be. Capt. Read left Madrid on the 22d June, at which time the ministry were debating on the subject.

The marquis de Casse Yrujo (prime minister) was banished from Spain with his family, a few days previous to our sailing; on account, it is said, of his being too warmly interested in our cause.

"There is a large naval force lying at Cadiz, with 18 000 troops, destined, it is said, for the protection of the Floridas, and not for South America, as was originally contemplated. (*Dubious*)

"An action was fought off Cadiz about the 15th June, between the Spanish government brig Voluntario, of 14 guns, and the Buenos Ayres government brig Independencia of 18 guns, wherein the latter was defeated! The V. has arrived at Cadiz, much cut up. They both fought under the flag of the United States.

"The officers and crew (70 in number) of the late patriot privateer Constitution, Capt. Appleton Meach (of Baltimore) are a Cadiz, in dungeons. General O'Donnell, governor of that city, has received an order from the king to pardon all the Spaniards found on board that vessel, and to execute all the foreigners. He did not obey it; but remonstrated against the cruelty of the act.

"Cadiz is a bad market for American produce. A cargo of Baltimore superfine flours old at 8 dollars 50 cents per barrel, a few days before we sailed. Naval stores of all descriptions are equally dull."

The ratification of the Florida treaty was expected by the Hornet: "but blessed are they who expect little; for they shall not be disappointed." She has arrived without it. There was no ratification as late as the 22d June, and there was some doubt (to say the least of it) whether it would take place at all.—There was even a rumour at Cadiz, and an impression among some of the officers of the Hornet, that it would never take place. Should this be the case, can any one mistake the cause of it? We may see the hand-writing on the wall; but we shall not see the mysterious finger. Yet we shall be as well satisfied that the hand is there—that the hand of Great Britain is in this thing; that it is her secret intrigues that now delay, and may ultimately defeat the consummation of our wishes; that while her ministers were openly, in parliament, admitting the right of Spain to cede what portion of her possessions she pleases, and disclaiming any right on their part to prevent it, and they are secretly and slyly plotting against us, and bidding off the relinquishment of the Floridas by the *bonus* of the South American Bill.—She may also urge upon Spain to hold off until we resort to a similar measure; nay, to make it a condition that she will ratify, provided we cut off all our resources from the Patriots of South America.

Should Spain refuse, she will be bound to disclaim the conduct of Don Onis, and to satisfy us that he had no authority for going as far as he has gone.—Should she refuse, a case of great delicacy and importance will come before us: *What shall we do?*—This is a question which requires a cool head and much deliberation to decide. Too much has already been hastily said by others upon it.

The rumour at New York of Spain's making war upon us is absurd. *She dare not.* She will not risk a war with us unless Great Britain edges her on, and she is too poor and pennyless to wish to do it. We think that Spain will neither seek a war with us, nor finally reject the treaty. *Richmond Enquirer.*

CASHMERE GOATS.

The Chevalier Jaubert, who had been sent by the French government to Cashmere, to procure some of the Goats producing the precious wool which forms the material of the Shawls fabricated at that place, had been heard from on his return, having reached the city of Maria Pol, in the government of Catherinoflaw, in Russia, bringing with him a flock of 1300 goats. At the date of his letter, (17th Dec. last) the thermometer of Reaumur marked fifteen degrees of cold, and the snow was a foot deep, which did not appear to affect the flock unfavourably, as they are accustomed to browse on the mountains of Thibet, where a great degree of cold prevails. This immense flock was to proceed to Theodosia, upon the Black Sea, whence it was to be embarked for France.

MR. GUILLE'S ASCENSION.

Yesterday a novel scene was presented to us. For the first time in America, an aeronautic ascension, so often attempted, was actually executed, and in a manner that gave universal satisfaction. We have often been surprised that the frequent exhibitions of this kind in Europe, should draw forth so large crowds and excite such acclamations as are always expressed by the spectators; but in seeing this our surprise has ceased. The scene was interesting beyond all expectation.

At an early hour in the afternoon every carriage was in requisition for the gardens, and Broadway, the Bowery, and all the roads leading to that place were crowded, and at about half past 5, all the avenues became impassable. The lower part of the town was nearly depopulated. Every tree, fence and shed in the vicinity of the garden, was covered with spectators, anxiously waiting to see the balloon ascend. To gratify those who were in the garden, the balloon was partially inflated about five o'clock, and suspended about ten feet from the ground. At 5 minutes past 6, it was completely inflated and immediately rose about 40 feet, in which situation it was suffered to remain but a short time. At 18 minutes past 6, Mr. Guille advanced to the centre of the circle, and after making some little examination of the cords which connected the parachute with the balloon, he took leave of his wife, bowed gracefully to the spectators, and took his position in the basket. In an instant the balloon began to ascend. The parachute was evidently lower on one side than the other, and much apprehension was felt for the safety of the voyager. At the moment of ascending, a gust of wind sprung up from the northwest and drove the balloon directly over the tall poplars in the garden, so that the basket was forced upon them and carried off some of the small branches. On clearing the trees the finest scene was presented; the balloon ascended with majesty and rapidity to a great height, the wind wafting it towards Long Island. In less than 10 minutes the parachute was detached from the balloon, and was seen for nearly half an hour gradually descending; apparently over Long Island; the balloon continuing in the mean time to ascend, till it finally disappeared in the clouds.

Till about 9 o'clock in the evening, much anxiety was manifested for the fate of the Aeronaut, when it was ascertained that he reached the earth in safety, having landed at Bushwick, near Williamsburg, Long Island, about 6 miles from Vauxhall garden. He reached town about half past eight o'clock with his parachute, in perfect health and spirits.

The engagement of Mr. G. was honourably fulfilled and we sincerely hope he may receive the remuneration he so eminently deserves.—*Merc. Adv.*

The ascent of Monsieur Guille recalls to recollection the following fanciful lines from Darwin's Botanic Garden:

See on the shoreless air the intrepid Gaul
Launch'd the vast concave of his buoyant ball!
Journeying on high, the silken castle glides,
Bright as a meteor, through the azure tides;
O'er towns and towers and temples wings its way,
Or mounts sublime and gilds the vault of day.
Silent, with upturn'd eyes, unbreathing crowds
Pursue the floating wonder to the clouds;
And, flush'd with transport, or benumb'd with fear,
Watch, as it rises, the diminish'd sphere.
Now less and less! and now a speck is seen!
And now the fleeting rack obtrudes between:
The calm philosopher in ether sails,
Views broader stars, and breathes in purer gales;
Sees, like a map, in many a waving line,
Round earth's blue plains, her lucid waters shine;
Sees at his feet the fork lightning's glow,
And hears innoxious thunders roar below.
Rise, great Mongolfier! urge thy venturous flight;
High o'er the Moon's pale ice-reflected light,
High o'er the pearly star, whose beamy horn
Hangs in the east, gay harbinger of morn;
Leave the red eye of Mars on rapid wing,
Jove's silver guards and Saturn's crystal ring;
Leave the fair beams, which issuing from afar,
Play with new lustre round the Georgian star.
Shun, with strong oars, the Sun's attractive throne,
The sparkling zodiac, and the milky zone,
Where headlong comets, with increasing force,
Through other systems bend their blazing course:
For thee Cassiope her chair withdraws,
For thee the Bear retracts his shaggy paws;
High o'er the north the golden orb shall roll,
And blaze eternal round the wandering pole.
So Argo, rising from the southern main,
Lights with new stars the blue ethereal plain;
With favoring beams the mariner protects,
And the bold course, which first it steer'd, directs."

SMITH'S HISTORY.

We invite the reader to the *Notice* respecting *Smith's History of the Settlement of Virginia*. We are delighted that the present Editor has taken it in hand. It is a curious, scarce and valuable memoir; and it is peculiarly worthy of encouragement. The first copy we saw was unaccompanied by *Smith's Adventures*, written by himself—but those *Adventures* are far more romantic and interesting than even the *History* itself—Unquestionably the two parts ought to go together—as they do in the last copy we have seen. Unquestionably the subscribers ought to call for them both.—Then they will have a complete picture of one of the most gallant spirits that "ever lived in the tide of times."

NOTICE.

It is requested that the names of the Gentlemen who intend to take copies of *Smith's History of the Settlement of Virginia*, &c. may be returned as speedily as possible to W. W. GRAY, printer, Richmond.

The Editor informs the public, that since the proposals for publication was issued, he has been so fortunate as to procure a complete copy of the history, with all the maps in perfect preservation. To this is prefixed an account of *Smith's* early adventures in various parts of the world, his heroic exploits in the wars against the Turks, &c. written by himself, in the true style of ancient simplicity and gallantry. The addition of this to the history originally proposed to be published, will increase the expence about fifty cents on the set. The Editor is persuaded that every literary gentleman, and every one who cherishes

Smith's memory as being an American, will be happy to have this additional matter at this increase of expence. But still can one venture, in these times, on a change in the terms of publication? Some expression of the public wish on this subject is called for. Will gentlemen who have subscribed, adopt some measures which will at once let the Editor know whether they prefer the history first proposed, or the history with the adventures of Smith prefixed? Any communication on this subject addressed to the printer, *W. W. Gray*, will be duly attended to.

[We are so much gratified to learn, that this most rare and valuable History is to be rescued from the "mouldering ruins" of time, in which it had nearly perished, that we here take the liberty of offering, unsolicited, to receive subscriptions, gratuitously, for any copies of the work which persons in this city may wish to have. For ourselves, we would sooner take it at double its price, than lose a leaf of it.—Give us every fragment that can be "gathered up" from the pen of Captain SMITH.]

Editor American Farmer]

Extracts from an act of the Virginia Assembly, passed the 22d February, 1817.

1st. Be it enacted, That any person who shall hereafter apprehend any runaway slave attempting to cross the Potomac, and deliver him to his master, or any person authorised to receive him, shall be entitled to a reward of twenty dollars, and mileage as heretofore allowed by law.

2d. And be it further enacted, That any person who shall hereafter apprehend any runaway slave, belonging to any person residing within this commonwealth, at any place in the states of Maryland and Kentucky, shall be entitled to a reward of twenty five dollars; at any place in the states of Delaware, Pennsylvania, New Jersey, or New York, or in the state of Ohio, to a reward of fifty dollars; and in all cases of the apprehension of a runaway slave, in any of the states aforesaid, the person apprehending shall be entitled to receive twenty five cents for every mile he shall necessarily convey such runaway. The distance to be proved by oath, &c.

TRANSPORTATION OF THE MAIL.

The following interesting statement, relative to the United States' Mail Establishment, is taken from an excellent address of Colonel *Richard M. Johnston*, of Kentucky, to his constituents—published in the Kentucky Gazette of the 16th April last.

"Among the departments of government, the post office department claims a rank with the most important, for general utility and convenience. This astonishing machine, like arteries and veins to the body politic, extends through every portion of our wide domain, connecting its various parts, and diffusing life and vigor to the whole. The increase of this department has been more rapid in its progress than that of any other in the government. In 1798 there were but 195 post offices in the United States. There are now about 3800.—

The whole length of the post roads in the U. States, is about 40,000 miles, running in various directions, and bearing intelligence to every community in the Union. The mail, in all its diversified movements, is transported nearly 8,000,000 of miles in a year:—more than 150,000 miles every week—making a distance nearly equal to a circuit round the globe each day—with an average of about one post office to every fifteen miles. The annual amount of postage is about a million of dollars, and the annual allowance to 3800 post masters is about 300,000 dollars. The annual expence of transporting the mail, amounts to nearly 700,000 dollars, to 900 contractors. As the object of this establishment is public and individual convenience, it has not entered into the views of the government to make it a source of revenue, which would, by levying a tax upon friendship and intelligence, impair the strongest bond of our union. While the government is furnished with the means of speedy and convenient communication with its agents in every part of the nation, distant friends may hold frequent and familiar conversation—and intelligence of every description is diffused among all classes of citizens, and in every neighbourhood of the union, through the medium of this establishment."

A new improvement in propelling Boats by Horse power.

The subscriber who is sole Patentee of the plan now in use, respectfully calls the attention of the merchants and citizens in general of Baltimore, to the following observations on his invaluable invention.

This principle has been in use three or four years at New York, Philadelphia, and other places. Commodore Porter, had one constructed at Georgetown, which was not on the same plan of those which I have built at Philadelphia.

I now feel confident that I can propel a Boat of the same dimensions as the Steam Boat Virginia, with 17 or 18 horses, with the same velocity with which the Virginia now moves, for the space of 24 hours, and as can be clearly demonstrated, with less than one fourth the cost, she (the Virginia) being at the daily expence of from 60 to 90 dollars, while under way—whereas my Boat should only incur the expenditure of 15 dollars per diem. A Boat on my construction, including horses and all apparatus complete, can be built for 10 to 12,000 dollars, when a Steam Boat of the same measurement with her apparatus, will cost from 40 to 50,000 dollars. Another very forcible argument is, that my Boat will carry double the quantity of freight. It is the opinion of many of the most intelligent gentlemen of this city, that this is the only true plan that can succeed for great distances. The unlimited advantages, which may accrue by adopting this improved method, being too numerous for insertion, I shall only add, that those gentlemen who are desirous of seeing our country flourish, and will do me the favor of calling at Mr. Sheeve's Wheel-wright shop, west Pratt street, near the Three Fun tavern, can see a model of the machinery.

W. HART, Patentee.

ON DUELLING.

DOCT. FRANKLIN TO DOCT. PERCIVAL.

Passy, July 14 1784.

I received yesterday by Mr. White, your kind letter of May 11th, with the most agreeable present of your new book.* I read it all before I slept, which is a proof of the good effects your happy manner has of drawing your readers on, by mixing little anecdotes and historical facts with your instructions. Be

pleased to accept my grateful acknowledgments for the pleasure it has afforded me.

It is astonishing that the murderous practice of duelling, which you so justly condemn, should continue so long in vogue. Formerly, when duels were used to determine law-suits, from an opinion that Providence would in every instance favor truth and right, with victory, they were excusable. At present, they decide nothing. A man says something, which another tells him is a lie. They fight; but whichever is killed the point in dispute remains unsettled. To this purpose they have a pleasant little story here. A gentleman in a coffee-house desired another to sit "further from him." "Why so?" "Because, sir, you stink." "That is an affront and you must fight me." "I will fight you if you insist upon it; but I do not see how that will mend the matter, for if you kill me, I shall stink too; and if I kill you, you will stink, if possible, worse than you do at present." How can such miserable sinners as we are, entertain so much pride, as to conceit that every offence against our imagined honor merits death? These petty princes in their own opinion, would call that sovereign a tyrant who should put one of them to death for a little uncivil language, though pointed at his sacred person: Yet every one of them makes himself judge in his own cause, condemns the offender without a jury, and undertakes himself to be the executioner.

With sincere and great esteem, I have the honor to be, sir, your most obedient, and most humble servant,

B. FRANKLIN.

P. S. Our friend, Mr. Vaughan, may perhaps communicate to you some conjectures of mine relating to the cold of last winter, which I sent him in return for the observations on cold of professor Wilson. If he should, and you think them worthy so much notice, you may show them to your Philosophical Society,† to which I wish all imaginable success. Their rules appear to me excellent.

* *Moral and literary dissertation*, 2d edition.

† The Philosophical Society of Manchester, of which Dr. Percival was one of the principal founders and ornaments.

To the Editor of the Enquirer.

Sir—Under the belief that it is your wish to encourage Agriculture as far as it is in your power, several of your subscribers are induced to request that you would, through the medium of your widely circulated paper, make the enquiry where a few seed of the Guinea Grass can be obtained. Doct. Brown, of Tennessee, made a communication respecting this grass to the Philadelphia Agricultural Society, in 1813.* Your compliance will oblige yours,

A SUBSCRIBER.

Surry, July 31, 1819.

Should any reader be able to give the information requested, it will gratify the Editor to lay it before the public.

* This communication is highly interesting, and shall be offered to our readers in the next number of the *American Farmer*. In the meantime, we earnestly request that if it should be in the power of any of our subscribers to procure some of the Guinea grass seed, they would be good enough to put a few, say half an ounce, in a letter, and address it by mail, to the editor of the *American Farmer*, with such notices of its growth, qualities, uses, and product as they may think worthy of remark.

ST. LOUIS, MO. JUNE 30.

Sans Neif, a chief and one of the principal counsellors of the Great Osage tribe, arrived here a few days ago on his embassy from his nation to the President, to lay before his excellency, on his arrival, the difficulties which at present exist between them and the government, and its officers, &c. &c.

Missouri Expedition.—This expedition has not yet sailed, but is daily expected to proceed. On Sunday the steam boats Johnston and Expedition, proceeded from the mouth of Missouri to Belle Fontaine in

about two hours, and stemmed the current with great ease.

Last week, Col. Henry Atkinson, on seeing the ferry boats worked by wheels, immediately conceived the idea of applying them to the barges, bound up the Missouri with United States' troops, stores, &c. In about three days he had one of the barges rigged with wheels, and a trial made, in which she run up the Missouri about two miles and back, in 30 minutes.

It is highly gratifying that the government has placed this prompt, decisive, and distinguished officer, in the command of this important station. This improvement which he has put in these barges will prove of vast importance to the government, both in expedition and saving of expence.

BUFFALO, July 27.

His Excellency Gov. Clinton, and the Canal Commissioners are now, we understand, in the vicinity of Batavia, and may be expected to arrive here in a few days. The important question relative to the location and construction of a Harbor at this place, will be definitely concluded upon by them previous to their departure.

We learn that the Boundary Commissioners have nearly completed the survey of the Niagara river, and will start for the west in a few days, in the government schooner Ghent, which arrived here on Sunday from Erie.

ALBANY, August 2.

Hay and Garden Vegetables.—We understand that many of our farmers in this neighborhood, are already shipping their new hay to New York, where it sells from \$15 to \$17 50 a ton; while in Albany it is almost a drug at one third of the price. Our gardeners also having learned that the dry weather has greatly injured the gardens in the vicinity of New York, are sending large supplies of our excellent vegetables to that market.

THE FARMER.

BALTIMORE, FRIDAY, AUGUST 13, 1818.

Our object in copying the Act for the encouragement of Agriculture, passed by the Legislature of the State of New York, is to exhibit to the Legislature of Maryland, an example worthy of their imitation. We must confess, that our anticipations are not sanguine. This state is so cut up by conflicting local views, and so perpetually distracted by party spirit, that we fear nothing will be done upon a great and liberal scale to promote the cultivation and improvement of its internal resources.

If half the time, money and talents, that have been thrown away in establishing Banks and Lotteries, and in putting some men in, and tumbling other men out of office, had been devoted during the last fifteen or twenty years to the promotion of the interests of Agriculture—opening Roads—improving the navigation of Creeks and Rivers, and the encouragement of Education and the Useful Sciences, how much more proud and enviable would now be the reputation of the state and the actual condition of its population.

Under the operation of a wise internal policy, having for its object the advancement of Agriculture and of the good people, instead of the acquirement of ephemeral power and petty office—we should not long witness the degrading spectacle of ship loads of emigrants arriving in this state—going to clear farms in the western wilderness, while so much land remains a barren waste, not one hundred miles from this populous city.

Let but the Legislature hold out that encouragement to agricultural pride and emulation which has been extended to them by the governments of New York and Massachusetts—and we shall not suffer under the odium of having it said that—the quality of the land considered, the average product of Maryland is far below that of other states to which nature

has been so much less bountiful. We trust among the first acts of the next Legislature of Maryland, will be one for the encouragement of Agricultural Societies.

POETRY.

Selected for the Boston Gazette.

Messrs. Editors.—If the following little piece of poetry does but give half the pleasure to your readers that it has given to me, I think they will thank you for publishing it. Would that more of that sweet and lovely spirit of contentment, which in a wife breathes so great a charm around the connubial state, were to be found in all the walks of life. That spirit which makes every thing delightful and every thing happy, and blossoms even sorrow itself into joy.

THE PEASANT AND HIS WIFE.

HE. THE long, long day, again has pass'd

In sorrow and distress:

I strive my best—but strive in vain,

I labor hard—but still remain

Poor and in wretchedness.

SHE. Nay, we have health—you love your wife—

And she returns its flame;

Want still is absent from our cot,

God gives us breath to sooth our lot,

What more can you desire?

HE. I wish'd to earn a little sum,

My dearest wife for thee;

I wish'd, by toiling day and night,

To gain some wealth that might requite

Thy fond fidelity.

SHE. No wealth repays fidelity,

Nor gold nor monarch's crown;

My heart which doth to thee incline,

Finds all its love repaid by thine,

And smiles at fortune's frown.

HE. But ah! to see thee live in want,

It fills my soul with care,

That thou so noble, just and good,

Must slave and toil for daily food,

That drives me to despair.

SHE. I gaily work [God knows my heart]

Contented at your side:

More joys than wealth can give I prove,

To share thy sorrows and thy love;

Thy faithful heart's my pride.

HE. But who, when I am snatch'd from thee

Will hush thy trembling sighs?

And when our babe shall weeping say,

"O mother! give me bread I pray!"

Who then will heed its cries?

SHE. God! whom the worm and sparrow shields,

Man in his need can aid:

He'll be my comfort when thou'rt fled—

The orphan's sire will give him bread—

O! be his will obey'd.

HE. Wife of my heart, how great thou art!

Thy love is all my weal;

I feel so proud of one like thee—

Thy love and thy fidelity

Inspire me with fresh zeal.

AGRICULTURE.

Thou first of arts, source of domestic ease,
Pride of the land, and patron of the seas,
Thrift Agriculture! lend thy potent aid;
Spread thy green fields where dreary forests shade.
Where savage men pursue their savage prey,
Let the white flocks in verdant pastures play;
From the bloom'd orchard and the showery vale
Give the rich fragrance to the gentle gale;
Reward with ample boon the laborer's hand,
And pour thy gladdening bounties o'er our land.
Columbia's sons, spurn not the rugged toil;
Your nation's glory is a cultur'd soil.
Rome's Cincinnatus, of illustrious birth,
Increas'd his laurels while he till'd the earth;
E'en China's Monarch lays his sceptre down,
Nor deems the task unworthy of the crown.

MISCELLANY.

Harford (Mirror) August 2.

WELLS' PRINTING PRESS.

We are pleased to state that Mr. John I. Wells, an ingenious mechanist of this city, has at length so far perfected his PATENT LEVER PRINTING PRESS, as to offer it publicly for sale. We witnessed it in operation on Thursday last, and perhaps some account of it will be acceptable to our brethren of the type.

Mr. Wells states, that from the application of the power of levers end-wise, in expressing linseed oil, he became fully convinced that it exceeded all other mechanical powers. It is now about four years since he made his first experiment upon an old press—Since that time he has been constantly making experiments upon every part of the press which admitted of improvement, and he has succeeded in every effort. Perhaps it may be deemed high ground, after the deserved reputation which Mr. Clymer's presses have acquired—but we are nevertheless of the opinion [and we have witnessed the operations of both for more than two years] that Mr. Wells' press excels his. The construction of it is more simple and compact, and its impression is very powerful and even.

In order that a proper estimate of the power of this press may be formed, it may not be improper to subjoin a short description of it. The frame, platten, and several other parts, are of cast iron; and the weight of the cast and wrought iron is about 1500 lbs. The power is obtained by two upright levers, footing in the centre of the platten; within a strong circle upon the plate. These levers are fifteen inches in length, one and three fourths of an inch square in the body, and four inches wide at the ends. They move in sockets of the semicircle of half an inch; falling back in the centre, two inches, from a perpendicular line—this admits of the rising of the platten. They are governed in this joint, and forced nearly to a straight line by two horizontal levers, attached in connection with the arm or bar, to the back part of the press; which, in gaining the power, are brought nearly to a straight line. The platten is raised by a spindle, suspended upon a balance lever, by a balance weight. It is governed in its movements by grooves attached to the inner edge of the body of the press.

The manner of hanging the tympan, and securing the galleys, is also new. Every part exposed to friction is steeled.

The present prices of these presses are from 325 to 350 dollars, as they differ in size, which we think cheap, considering the cost of the iron, the amount of labor, together with their ease and durability.

SALES OF COUNTRY PRODUCE,

Ascertained by actual Sales, and reported for the American Farmer, by W. H. De Wright—Commission Merchant. Baltimore.

TOBACCO.—Montgomery County, \$8 50 cts. to \$13, sales. 2 hhds. crop, a \$10—3 do. do. a \$9—1 do. second, \$7, Calvert county, sold by J. SPICKNALL.

WHITE WHEAT, 104 to 106 cts.—Red, do. 98 cts. to \$1—Corn, 50 to 54—Oats, 40 to 45 Rye, 50 to 55 cts. per bushel. Beef, best Butcher's, 10 to 12 cts. Chickens, per doz: 250 cts. to \$3—Veal, per lb. 10 to 12 cts. best pieces—Mutton, 6 to 8—Suet Beef, 8 to 10—Pork 8 to 10—Eggs, per doz. 18 cts.—Butter, per lb. 25 to 37—Potatoes, new crop, per peck, 37 to 50 cts—Onions, per peck, 37 to 50—Hay, per ton, \$17—Straw, do. \$12.

No alteration in the prices of North Carolina Staples, except in the article of Tar, which is selling for \$1 75 cts. per bbl.

PRINTED EVERY FRIDAY AT \$4 PER ANNUM,

FOR JOHN S. SKINNER, EDITOR.

At the south-west corner of Market and South streets.

BALTIMORE.

EBENEZER FRENCH, PRINTER.